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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/690,474

10/18/2000

Masahiko Miyamoto

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22852

7590

11/24/2003

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP

1300 I STREET, NW  
WASHINGTON, DC 20005

EXAMINER

NGUYEN, BINH AN DUC

ART UNIT

PAPER NUMBER

3713

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/690,474

Applicant(s)

MIYAMOTO ET AL.

Examiner

Binh-An D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5-12 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-12 and 14-19 is/are allowed.
- 6) ☒ Claim(s) 2,3 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. The Amendment and Replacement of Drawings filed in Papers No. 5 and 6, September 9 and 10, 2003, respectively, have been received. According to the Amendment, claims 1, 4, and 13 have been canceled and claim 2 has been amended. Currently, claims 2, 3, 5-12, and 14-19 are pending in the application. Acknowledgment has been made.

2. The disclosure is objected to because of the following informalities:

On Page 27, line 19, the cited term "the tree dimensional coordinates" should be changed to "the three dimensional coordinates".

Appropriate correction is required.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson's 5,638,300 or 5,907,819 in view of Kobayashi (5,233,544).

Johnson teaches a swing measurement method for measuring a swing behavior during a swing with an impact implement grasped on a grip portion thereof (Figures 1-2), comprising: fixing a three dimensional magnetic sensor 20 to a grip portion of the

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impact element; forming magnetic fields (from radiation source 32), each distribution of intensity and direction thereof being known, within a range motion of the grip portion, so that the three dimensional magnetic sensor senses magnetism of each of the formed magnetic fields for outputting signals corresponding to three dimensional position of the grip portion with respect to a predetermined point, and to pointing direction of the grip portion with respect to a predetermined direction (Johnson '300, 3:61-4:12; or Johnson '819, 3:65-4:16); acquiring at least one of three dimensional position coordinates data of the grip portion and pointing direction data of the grip portion from the output signals, wherein the impact implement is a golf club; the three dimensional position coordinates data and the pointing direction data, are acquired during the swing of the golf club; and further wherein: the three dimensional magnetic sensor fixed to the grip portion has three mutually orthogonal axes for sensing (Johnson '300, 4:13-6:13; or Johnson '819, 4:17-6:16); the three dimensional position coordinates data and the pointing direction data represent the swing behavior of the grip portion at least from a top state to an impact state of the swing (Figures 12-17).

Johnson does not explicitly teach the limitations of: one direction of an axis from among the three mutually orthogonal axes being aligned with a direction of an axis of a shaft of the golf club; and one direction of an axis from among the other two axes being aligned with an impact direction of the golf club. Kobayashi, however, teaches a swing measurement method for measuring a swing behavior during a swing comprising aligning acceleration sensors (22, 24) coincide with an axis of the shaft (12) of the golf

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club (3:30-39); and aligning acceleration sensor (26) at right angle to an axis of the shaft (12) (toward the impact direction of the golf club) (3:40-44, and Figures 2, 13, and 14).

Regarding the limitation of the three dimensional magnetic sensor being fixed to the end of the grip portion (claim 5), it is obvious to place the sensor at certain desired parts of the golf club to measure its swing.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to align the sensor's magnetic axes of Johnson's using sensor alignment method, as taught by Kobayashi, to come up with a faster and more accurate method for measuring a golf swing behavior thus improve golf swing technique and attract more golf players.

5. Claims 6-12 and 14-19 are allowed.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Evans (3,717,857) teaches an athletic swing measurement system.

Lindsay (5,474,298) teaches a golf swing analyzing apparatus.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh-An D. Nguyen whose telephone number is 703-305-5713. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on 703-308-1327. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

BN

  
Teresa Walberg  
Supervisory Patent Examiner  
Group 3700